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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,496	12/09/2003	David Camp	44501-00046 USPT	4603

7590

07/12/2005

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EXAMINER

HOUSE, LETORIA G

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/731,496	CAMP, DAVID	
	Examiner	Art Unit	
	Latoria House	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Orienter For Drilling Tool Assembly and Method.

2. The disclosure is objected to because of the following informalities: the drive shaft is confusingly number as both item "22" and "24."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams et al. (U.S. 5,738,178). Note Figures 1, 2 and 4.

With regard to claim 1, Williams et al. discloses an orienter (16) comprising a means for connecting to a drilling motor (18), the drilling motor including a drive shaft (20) for transmitting rotary power; a clutch mechanism (130) constructed and arranged for transmitting rotary power from the drive shaft (20) when actuated; a rotatable housing including a bent portion (28); a speed reduction system (column 9, lines 12-15) located between the clutch mechanism (130) and the rotatable housing (28), whereby when the

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clutch mechanism is actuated, rotary power from the drive shaft is transmitted through the clutch mechanism, through the speed reduction system, to rotate the rotatable housing.

With regard to claim 2, the reference discloses the orienter (116) further including a means for rotating the bent portion (28) to a predetermined position.

With regard to claim 3, the reference discloses the orienter (116) wherein the clutch mechanism (130) is a mechanical clutch which transmits torque using physical contact of surfaces. See column 8, lines 53-58.

With regard to claim 4, the reference discloses, the orienter (116) further including a means for transmitting information (46) describing the clock face position of the rotatable housing (28). See Column 9, lines 29-30.

With regard to claim 5, the reference discloses a steering means (46) within the rotatable housing (28). See Column 7, lines 4-8.

With regard to claim 6, the reference discloses a system (14) comprising: a drilling tool assembly (116) constructed and arranged for mounting to the end of a length of coiled tubing (10); means for storing the coiled tubing (10) and causing the coiled tubing (10) to move through the borehole (See Figure 1); the drilling tool assembly (116) comprising: a drill motor (18) constructed and arranged for mounting to the end of said coiled tubing (10); a rotating drill bit (22) constructed and arranged to receive rotational torque from a drive shaft (20) connected to the drill motor (18), the drill motor (18) producing torque in response to flow of drilling fluid through the coiled tubing (10); an orienter (28) located between the drill motor (18) and the rotating drill bit (22),

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the orienter (116) having a rotatable housing (28) constructed and arranged to enclose the drive shaft (20); the rotatable housing (28) including a fixed bend constructed and arranged to cause the rotating drill bit (22) to create an arcuate borehole in a direction determined by the orientation of the fixed bend; and the orienter (28) being further constructed and arranged to orient the fixed bend in response to a signal transmitted from the earth's surface (42, 44, 46).

With regard to claim 7, the reference discloses a downhole tool system comprising: a bit (22) for drilling the bore hole when rotated; a hydraulically driven motor (18) including a drive shaft (20) for rotating the bit in response to hydraulic fluid being pumped through the motor; an orienter (28) located between the bit (22) and the motor (18), the orienter (28) including a rotatable housing with a fixed bend; and a means (32, 50) for selectively transmitting torque from the drive shaft (20) to the rotatable housing (28).

With regard to claim 8, the reference discloses a rotatable housing (28) which includes: an upper section adjacent to the motor (18) on one side of the fixed bend; and a lower section adjacent to the bit (22) on the opposite side of the fixed bend.

With regard to claim 9, the reference is capable of performing the steps of: progressively moving, by means of a continuous length of coilable tubing (10), a drilling tool assembly, the drilling tool assembly including a rotating drill bit (22), the rotating drill bit being positioned adjacent to an orienter including a rotatable housing with a fixed bend (28); causing the rotatable housing with a fixed bend to rotate for forming a straight section of said borehole; causing said rotatable housing to remain

stationary for forming an arcuate portion of said borehole; periodically determining the orientation of said fixed bend.

With regard to claim 10, the reference is capable of performing the steps of claim 9 wherein the rotating drill bit (22) is driven by a hydraulic motor (18) using fluid pumped through the continuous length of coiled tubing (10).

With regard to claim 11, the reference is capable of performing the steps of claim 9 wherein the orientation of the fixed bend is electrically sensed during drilling operations (42, 44, 46).

With regard to claim 12, the reference is capable of performing the steps of claim 9 with the limitations of claim 10 wherein the fixed bend portion (28) of the rotatable housing is rotated to a predetermined position by the drilling motor.

With regard to claim 13, the reference is capable of performing the steps of: inserting a drilling tooling means through the earth's surface into the subterranean environment; pumping fluid media to said drilling tooling means through a continuous length of tubing (10) connected to said tooling means; inserting communication means through said continuous length of tubing to said drilling tooling means; dividing said drilling tooling means into a rotatable and non-rotatable section, said rotatable section of said drilling tooling means including: a bit (22) for forming the bore hole when rotated; means for orienting (116) the drilling tooling means, the means for orienting the drilling tooling means including a fixed bend (28) for causing the bit (22) to bore an arcuate bore hole in the direction determined by

the position of the fixed bend (28); the means for orienting (116) the drilling tooling means further including means for selectively positioning said fixed bend in response to a signal transmitted from the earth's surface through said communications means, to guide the bit (22) along the predetermined path (42, 44, 46); the non-rotatable section of said drilling tooling means including a motor (18) for rotating said bit.

With regard to claim 14, the reference is capable of performing the steps of claim 13 wherein the means for orienting the drilling tool means further includes a clutch mechanism (130) for providing torque to the rotatable section (28).

With regard to claim 15, the reference is capable of performing the steps of claim 13 further including the step of transmitting the position of the drilling means to the earth's surface (42, 44, 46).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents disclose orienters used in well bore drilling applications: Comeau et al. (U.S. 6,571,888), Thometz et al. (U.S. 4,901,804), Prevedel et al. (U.S. 5,139,094), Robin (U.S. 6,550,818), Larronde et al. (2001/0052428), Dorel (U.S. 6,158,529), and Vargervik et al. (U.S. 6,679,323), Williams et al. (U.S. 6,129,160).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Latoria House whose telephone number is (571) 272-8118. The examiner can normally be reached on M-F, 7:00 A.M. - 4:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Bagnell
Supervisory Patent Examiner
Art Unit 3672

LGH